

Strategy Research Project

Developing Army Acquisition Officers for the 21st Century

by

Colonel Darrell Joseph Bennis
United States Army



United States Army War College
Class of 2013

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USAWC STRATEGY RESEARCH PROJECT

Developing Army Acquisition Officers for the 21st Century

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Colonel Darrell Joseph Bennis
United States Army

Colonel David Arrieta
Department of Command, Leadership, and Management
Project Adviser

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U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Abstract

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The U.S. Army faces a future comprised of uncertain threats, fiscal restriction, and aging, worn-out equipment. The need for new, relevant, affordable and well managed capability portfolios could never be higher. The Army is reliant on its Acquisition Corps program managers to successfully refine, develop, field, and institutionally support current and next generation programs. Defense Acquisition University and Army Acquisition Center of Excellence curriculums focus on subject matter facilitating completion of acquisition certification functional training requirements. The new Department of Defense Acquisition Qualification Standard initiative requires initiation of comprehensive developmental programs to rectify experiential proficiency gaps within the program management community. Critical to the Army's future programmatic success is focusing program manager training and developmental on holistic portfolio management concepts preparing them to manage the entire acquisition programmatic lifecycle.

Developing Army Acquisition Officers for the 21st Century

We are developing today the Joint Force our Nation will need in 2020. Keeping our military the best led, trained, and equipped in the world is a non-negotiable imperative. Doing so during a period of fiscal constraint will be hard. I am determined to build a responsive Joint Force that preserves options for our Nation.

—Gen Martin E. Dempsey¹
18th Chairman, Joint Chiefs of Staff

The U.S. Army faces critical challenges following more than a decade of armed conflict. The most prevalent challenges are the looming specter of the Budget Control Act of 2011 or what has more commonly been referred to as the sequester, diminished budgets, equipment sets aged and exhausted from continuous employment in combat, and the uncertainty of threats that face the United States in the future. We have all heard the mantra, “Do more with less.” General Dempsey’s comments echo this mantra and also place it into context. As part of the joint force, the Army must develop and refine its future force capabilities while reconstituting its existing equipment portfolios, in an era of significant fiscal constraint, while at the same time downsizing personnel strength.

The final details and impacts of sequestration remain unclear but the implications for the U.S. Department of Defense (DoD) appear catastrophic. “The Obama Administration plans to cut \$487 billion from the DoD over the next decade with potential additional cuts of \$500 to \$600 billion between fiscal years 2013-2021.”² If these details prove out, the Army faces drastically diminishing budgets. Reduced budgets will affect Army procurement efforts. Compliance with fiscal constraints will compel the Army to examine programmatic developmental efforts for cost effectiveness, and future relevance, and make important decisions such as if older systems should be

reconstituted and sustained, vice investing in new systems. Dedicated and highly skilled acquisition program managers represent the key to the Army's ability to do this effectively.

Acquisition Corps program managers must possess the requisite technical knowledge and skill, political shrewdness, and ingenuity to manage current capability portfolios, ensure programmatic cost effectiveness, and comprehensively develop, procure, and manage essential new system development throughout the acquisition process and programmatic lifecycle. The need for new, relevant, affordable equipment and well-managed capability portfolios which meet or exceed requirements could never be higher. As such, the Army is reliant on the Acquisition Corps and its program managers to refine, test, develop, field, and institutionally support current and developing next generation programs. A great deal is riding on Army program managers. The Army doubtless requires technological solutions to its capability requirements but lacks the infinite resources to explore unrealistic, long lead, and inefficiently managed options. Critical to the Army's success through this period of change, is focusing acquisition program manager training, education, and experiential developmental on comprehensive portfolio management concepts which truly prepare and empower them to manage throughout the acquisition process and programmatic lifecycle and lead their programs successfully.

The foundation of the DoD's Acquisition Corps lies in Public Law 101-510, Title 10 United States Code or what is more commonly referred to as the Defense Acquisition Improvement Act (DAWIA). "DAWIA calls for each military department to establish an Acquisition Corps and specifies eligibility criteria for membership."³ DAWIA

further states that acquisition corps membership “is limited to civilians holding positions at or above GS-13 and members of the military at the rank of major (O-4) or above and that membership is limited to personnel possessing a college degree with at least 24 credit hours in business and at least four years of acquisition experience.”⁴ In some instances, military services may grant waivers and/or impose additional eligibility requirements. DAWIA outlines several specific details regarding corps membership requirements yet remains vague regarding acquisition program manager professional development. The criticality of impending fiscal challenges facing the Army and the importance its program management community has in successfully meeting those challenges warrants scrutiny in how these professionals are developed.

This paper will review methodologies the Army employs to train, educate, and experientially develop its members of the DoD Acquisition Workforce to successfully serve as future Acquisition Corps Program Managers. It will examine Army approaches to achieve DAWIA mandates by reviewing educational requirements, including venues for program manager education and functional training. It will further examine the content of current Army program management developmental models regarding their ability to produce successful program managers once they become responsible for equipment portfolios. Finally, this paper will provide recommendations for creating a feasible, holistic professional program of study and consistent professional development of prospective program managers to ensure success once they become organizational leads and responsible for U.S. Army equipment portfolios throughout the entire acquisition lifecycle.

Training

DAWIA requires that acquisition personnel successfully complete functional training. “(DAWIA) called for establishing an Acquisition Corps and professionalizing the acquisition workforce through education and work experience.”⁵ The Army administers its functional training via three academic institutions: The Defense Acquisition University (DAU), The Army’s Acquisition Center of Excellence (AACoE), and The Naval Post Graduate School (NPS). The most common training venue is DAU. The DoD established the DAU via DoD Directive 5000.57 in October 1991.⁶ DAU evolved from the Defense Systems Management School and the consolidation of eleven other acquisition-related Service schools. DAU’s functional training curriculum provides acquisition program management workforce members exposure to the intricacies of the DoD 5000 Defense Acquisition System (see Figure 1) and focuses on the achievement of acquisition certification credentialing in a tiered, time phased approach.

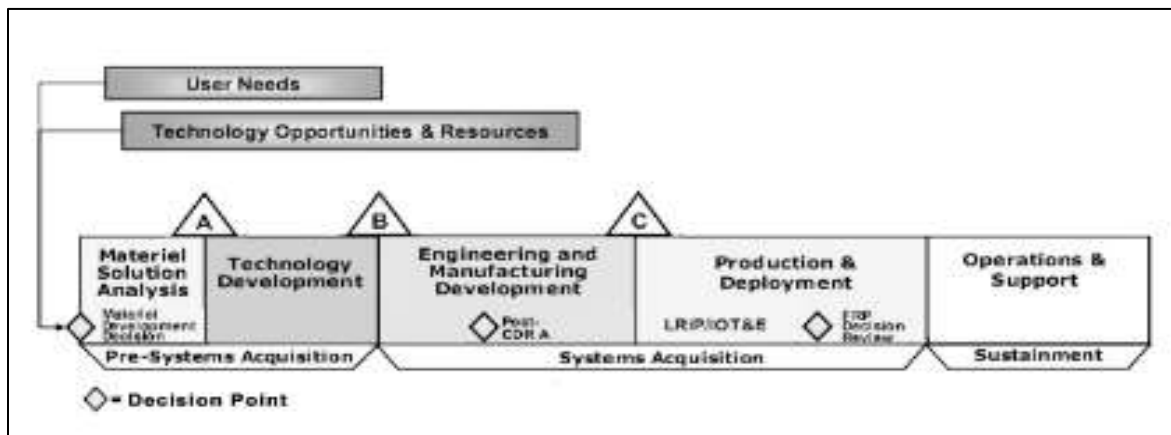


Figure 1. DoD 5000 Simplified Acquisition System 6F⁷

This approach presents the simplest acquisition concepts first, allowing acquisition workforce members to go back to their respective jobs and put the theory into practice. Subsequent training exposes workforce members to more comprehensive

theory. Eventually, workforce members are exposed to the entire acquisition lifecycle concept (Figure 2) which program managers are expected to both understand and master. Simply put, acquisition lifecycle management entails programmatic or capability development management and oversight from inception through retirement; more specifically, it covers refinement of requirements, technical solution development, fielding, post deployment support, and ultimately demilitarization and retirement. Completion of the entire DAU program management curriculum may take years depending on limited course availability and career timeline but ultimately, it provides the workforce member with the high level exposure to technical theory required to be an acquisition corps member and serve as a program manager.

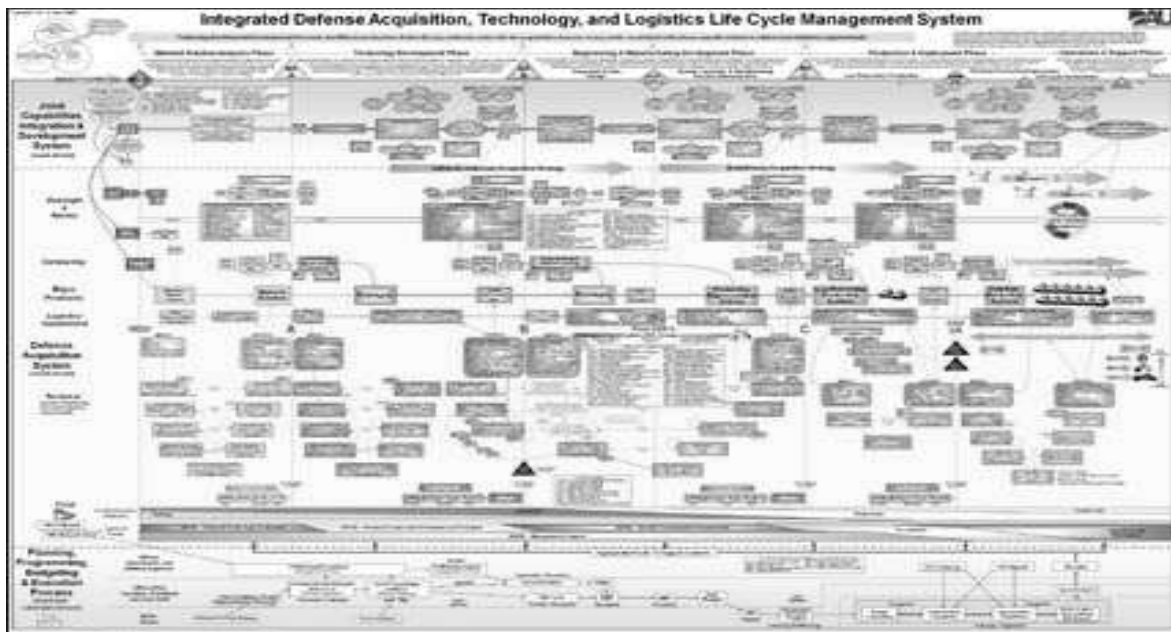


Figure 2. Integrated Defense Acquisition, Technology, and Logistics Life Cycle⁸

DAU employs multiple sources in developing its program management functional training curriculum; however, the base source is Department of Defense Instruction (DoDI) 5000.66. DoDI 500.66 mandates that career field functional advisors shall:

“Establish, oversee and maintain the education, training, and experience requirements including competencies and certification standards; position category description(s); and content of the DAU course as current, technically accurate, and consistent with DoD acquisition policies.”⁹ The current functional advisor for the program management career field is the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)), Deputy Assistant Secretary of Defense, Strategic and Technical Systems (DASD STS). In Jan 2008, DASD STS established and published the Program Managers Functional Career Field Competencies in an OUSD(AT&L) memorandum for the DoD acquisition workforce. DAU consolidated OUSD(AT&L) Program Managers Functional Career Field Competencies, Government Accounting Office and Inspector General studies, student feedback, service input, other stakeholder influence, and emerging laws and policies into what ultimately comprises the DAU program management functional training curriculum.¹⁰

The program management functional advisor coordinates a Functional Integrated Product Team (FIPT) headed by the USD(AT&L). This FIPT meets quarterly (or more frequently as needed) to discuss ongoing actions and important issues which affect the DoD’s acquisition program management community. Membership in the program management FIPT is limited to strategic level leadership from each of the respective services as well as the 4th Estate. The Army’s Director of Acquisition Career Management, Assistant Secretary of the Army for Logistics, Acquisition, and Technology (ASA (ALT)), or the designated representative represent the Army. The FIPT reviews the DAU acquisition program management functional training curriculum annually for suitability and applicability to the needs and trends of the acquisition

community. The FIPT weighs student after action reviews, community feedback, specific service requirements, and senior leadership directional guidance against existing course structure. When the FIPT discovers deficiencies, it adjusts the DAU curriculum to address those deficiencies and better meet DoD's corporate acquisition requirements and core competencies. The FIPT goal for the DAU curriculum is to provide a comprehensive overview of, and exposure to, the Defense Acquisition System and the integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System within a limited amount of time. Due to time constraints, the need for relevance across the entire federal government, and variations in the idiosyncratic service cultures and requirements, the program management curriculum is broadly generalized and avoids service-specific content.¹¹

To clarify and communicate the DAWIA and DoDI 5000.66 statutory and regulatory requirements for education, training, and education to the acquisition workforce, USD(AT&L) directed DAU to develop core certification requirements for the twelve Acquisition Career Fields (ACFs) including program management. The certification requirements for the program management career field appear in the Table 1 below.

Table 1. Program Management Certification Standards 11F¹²

Program Management Certification Standards(required for DAWIA certification)			
Acquisition Career Field and Level	Acquisition Functional Training Requirements (DAU core & functional)		Experience Requirements
Program Management Level I	ACQ 101 SYS 101	CLB 007 CLB 016	Formal education not required 1 year of acquisition experience
Program Management Level II	ACQ 201A ACQ 201B PMT 251 PMT 257 CON 121	CON 124 CON 127 SAM 101 or IRM 101	Formal education not required 2 years of acquisition experience; at least 1 year in program management
Program Management Level III	BCF 102 BCF 103 LOG 103	SYS 202 PMT 352A PMT 352B	Formal education not required 4 years of acquisition experience; 2 years in program management office 1 year managing cost, schedule, and performance metrics

Examination of existing DAWIA certification requirements for the program management career field reveals extensive reliance on DAU functional training and limited reliance on formal education, and only vague expressions of requisite experience. DAWIA certification requirements as expressed above represent the bedrock for DoD acquisition program manager development and incorporate USD(AT&L)'s program management career field competencies as well as input from the program management FIPT. Strict adherence of the DAU training model provides program management students with an overview of specific career field functionality but insufficient time exists to provide detailed exposure to or mastery of the intricacies and nuances of the program management career field skill set. Additionally, DAU's DoD-wide focus of the program management functional training curriculum simply does not address Army specific acquisition and procurement functional training needs.

The Army formally established the U.S. Army Acquisition Center of Excellence (AACoE) at the University of Alabama in Huntsville on January 25, 2011. The U.S. Army Acquisition Support Center (USAASC) web site defines the AACoE purpose:

The AACoE is a centralized training, education, and career development school for Army acquisition officers, noncommissioned officers, and Department of the Army civilians. This facility centralizes Army institutional training, education, and career development courses for the acquisition, logistics, and technology workforce and improves the effectiveness of leader development efforts while increasing acquisition synergy."¹³

The AACoE represents the Army's acquisition schoolhouse and the center for acquisition technical development and studies and as such should represent the primary venue for Army acquisition training.

To accommodate the Army acquisition workforce's growing need for acquisition functional training, the AACoE developed multiple comprehensive training tracks. The

AACoE designed its program management curriculum to comply with DAWIA functional training requirements and provide certification credit in a more compressed timeline than DAU. AACoE's flagship functional training course suite for program management personnel is the Army Acquisition Basic Course (AABC), Army Intermediate Program Management Course (AIPM), and Army Acquisition Intermediate Contracting Course (AAICC). This twelve-week program provides newly designated Army acquisition workforce personnel with the functional training needed for their initial acquisition assignments and achieve Level II DAWIA certification.

The AACoE represents the training epicenter for the Army's military acquisition workforce. The AACoE is a fledgling organization and capability representing a virtual diamond in the rough for the Army as it seeks to comprehensively develop and hone its acquisition program managers. Current AACoE curriculum predominately focuses on achieving and maintaining DAU equivalency albeit in a compressed timeline. The AACoE, the ASA(ALT), and the USAASC are exploring ways to expand overall Army specific training content and reduce developmental shortcomings in newly minted graduates. Concepts for expansion includes a capstone exercise which calls into play all aspects of the acquisition lifecycle, incorporation of developmental and operational testing, and discussion panels with currently serving Army acquisition senior leaders.¹⁴ The concept of each proposed expansion is teaching program management students real world skills while providing them a venue to make the leap from receiving theory to fully understanding and applying it in practice.

The final option available for Army program management functional training is the Naval Postgraduate School (NPS), at Monterrey, California. The NPS curriculum

spans in duration from 18 months for resident students (predominantly military) to 24 months for the distance-learning students (predominantly DoD Civilians). “The Acquisition Management Curricula are designed to develop the knowledge, skills and competencies necessary to effectively lead the acquisition workforce and efficiently manage the resources allocated to the acquisition process. The curricula focus on problem solving and decision-making in a variety of acquisition situations demanding critical thinking and a balanced approach in the application of theory and practical solutions.”¹⁵ As with the AACoE, and most universities, the NPS offers several specific educational tracks.

NPS curricula initial focus includes completion of the entire DAU battery of functional training courses plus additional functional training in related areas, such as testing, budgeting, and cost estimation. The remainder of the NPS course work spans six academic quarters and provides the program management student with detailed study in one of eleven acquisition related disciplines.¹⁶ Various writing assignments, projects, seminars, exercises, and labs provide students with detailed exposure to acquisition-specific theory and practices. This allows NPS students the chance to employ program management theories in practical scenarios, and employ critical thinking to develop potential solutions. As a result, graduating students possess a deep understanding of how to practically execute the theories of acquisition and are prepared to successfully develop their individual skill sets on the job while learning to lead acquisition programs in the future.

Each functional training venue available to the Army’s acquisition workforce offers specific value to the student and to the Army as a whole. However, the Army’s

acquisition functional training and development options create a workforce with dissimilar developmental credentials and very limited exposure to critical thinking, advanced acquisition concepts, and problem solving techniques. This dissimilar development creates challenges within the Army's program management workforce as it generates disparate glide paths for future individual personal and professional development. Unlike both DAU and the AACoE, completion of the NPS acquisition program provides the graduate with not only the DAIWA functional training required to achieve the highest level of certification. DAWIA Certification Level III, but also a Master's degree in one of several acquisition related disciplines including a Master's in Business Administration. Additionally, NPS graduates enter the workforce far better prepared than students who attend and complete the AACoE or DAU curriculums.¹⁷ NPS graduates have a far reduced requirement to attend and complete additional core training and education and thus may spend more time gaining valuable acquisition experience.

As developing program manager students training venues differ, so too do the levels of exposure to deeper acquisition theory and practice. Following initial functional training, each individual program manager's career path and developmental exposure differs depending on their respective assignments, proficiency of leadership, quality of career mentors, and opportunity. The qualities of initial acquisition training notwithstanding, Army program managers face an uphill battle to achieve formalized education and the right type of experiences to be successful at the leadership level.

Education

Program management requires detailed and continuous analysis of programmatic cost, schedule, and performance requirements with regard to a specific

product or capability portfolio. The Army's Lifecycle Management Command (LCMC) concept places the burden for comprehensive programmatic or capability portfolio management on the shoulders of today's program manager. Thus, the program manager is responsible for all elements of a program or capability portfolio. From refinement of initial requirements in the developmental phase to continued support and sustainment once fielded through to system retirement, the LCMC concept assigns the program manager the management and oversight responsibility. This requires that program managers possess the ability to technically analyze programmatic details, formulate detailed plans and strategies, and think critically and creatively to solve myriad problems before they arise and jeopardize the program. But how are current and future program managers to develop the requisite skill sets required to perform the mental gymnastics needed to successfully manage a multi-million or multi-billion dollar program or capability portfolio? As shown in Table 1, DAWIA requirements for program manager certification do not include formalized collegiate education. Both DAWIA and DoDI 5000.66 leave the specific educational requirements for program managers unaddressed. In an era of growing fiscal pressure, considerable fiscal investment in capability portfolios, and widespread developmental complexity challenges, a lack of formal education is not only a recognized personal career burden, but it also could spell programmatic disaster. Where and how can Army program managers members obtain the formal education needed though overlooked by DAWIA?

DAU's designation as the DoD's central repository for all acquisition functional training imparts a very specific responsibility underscored by the following comment by

Colonel (R) Bill Parker, Director of DAU's Acquisition and Program Management Center.

The core competency of universities is education. DAU is a training organization. Our, DAU's, faculty is comprised of experienced practitioners, with expertise in training methods. Let us not confuse education and training. We do not want our workforce trained by academics whose focus is theory and research. We need our universities to educate our workforce in the theories and studies of business and engineering to prepare them for our training.¹⁸

DAU's clear distinction as DoD's epicenter for functional training accomplishes its charter and mission yet ignores the linkage with formalized education today's program managers require to succeed. Several nationally accredited universities recognize DAU's functional training and provide credit towards an undergraduate degree. This underscores the linkage between functional training and education the program management community understands. Functional training and formalized education are mutually supportive. Functional training without the tempering of formal education yields someone capable of following instruction, yet devoid of the ability to think beyond the immediate. Formal education without functional training creates a well- educated bookworm capable of reciting chapter and verse, yet possessing no reference for common sense application of their knowledge with which to solve problems.

The AACoE at University of Alabama, Huntsville is the Army's Acquisition Schoolhouse and the center for Acquisition technical development and acquisition studies. Though collocated within the University of Alabama, Huntsville campus, no direct affiliation with the University exists. As with DAU, AACoE's acquisition basic course curriculum provides high-level exposure to program management concepts and provides functional training in support of DAWIA certification. The AACoE, as a service school, provides additional educational tracks associated with Army professional

educational requirements for both commissioned and noncommissioned officers. These specific training tracks equate to the Noncommissioned Officer Advanced Training and the Senior Leadership Course, which are both precursors for promotion to E-7 and E-8 respectively; and the Officers Intermediate Qualification Course, which satisfies military education level (MEL) prerequisites for promotion through colonel. As with DAU, nationally accredited universities accept application of the AACoE program management curriculum towards a degree; however, the AACoE curriculum fails to capitalize on the mutually supportive relationship between functional training and formalized education. The AACoE eases the temporal burden of functional training through course consolidation, yet leaves the concept of formalized collegiate education unaddressed.

The most complete formal collegiate educational opportunity for developing Army program managers is the NPS at Monterrey, California. Graduates of NPS complete all functional training requirements to be designated members of the DoD's Acquisition Corps, DAWIA Certification Level III, and earn a master's degree in a specific program management related discipline. Additionally, the NPS curriculum exposes students to technical theory, critical thinking, and problem solving. The Army Director of Acquisition Career Management (DACM) reviews the NPS curriculum every two years for content, relevance, and functionality. NPS's focus on holistic education, rather than simply providing high-level exposure and DAU equivalent training, creates a better-prepared program manager. NPS graduates generally distinguish themselves from their peers educationally and as exceptional performers due to their superior grasp of technical details and ability to resolve complex programmatic challenges at the inception of their

careers.¹⁹ The Army recoups the significant fiscal and temporal investment in educating these students at the NPS via extended presence and competence within their respective program management jobs.²⁰ Furthermore, attending the NPS reduces graduate absenteeism due to the pursuit of further functional training and formalized education.

Lack of comprehensive formal collegiate educational requirements for the Army's program managers represents a challenge. As the Army deals with sequestration and fiscal constraint, ever increasing scrutiny will be paid to programmatic and capability portfolio cost, schedule, and performance requirements. The LCMC concept requires today's program managers possess exceptional technical expertise but also implies mastery of critical thinking skills to address creatively and succinctly the myriad problems that jeopardize procurement of today's capability portfolios. DAWIA allows military departments to impose additional service specific eligibility requirements for critical positions.²¹ As such, the Army must consider imposing mandatory formal collegiate educational requirements on the acquisition program managers. Additionally, the Army must explore institutionalizing the NPS approach combining acquisition functional training and formal collegiate education to exploit the mutually supportive benefits rendered graduates. The resulting technically superior and critically thinking graduate would make a program manager capable of meeting the LCMC management and oversight challenges.

Experience

Functional training and formal education (or lack thereof) represents two legs of the three-legged stool depicting DAWIA's certification requirements. Functional training

and formal education serve as the foundational legs on which a program manager develops their third leg experience (see Figure 3).



Figure 3. Acquisition Capability and Skill Set

Both DAWIA and DoDI 5000.66 provide specific details regarding the length of time required to obtain experience but only vaguely define what should comprise that experience. Existing certification requirements state developing program managers must work a specific number of years work within a program management office managing cost, schedule, and performance metrics.²² DoDI 5000.66 further distills the requirements for serving in both critical acquisition positions (CAPs) and key leadership positions (KLPs) by requiring additional acquisition experience within selective DoD or Army acquisition positions. However, neither DAWIA nor DoDI 5000.66 defines the context of the required experience.²³

DAWIA and DoDI 5000.66 requirements do not guide developing program managers or their leaders in plotting individual career paths to ensure they obtain the correct experience to successfully lead and manage a developmental program or capability portfolio throughout the acquisition lifecycle. Additionally, the unclear requirements related to acquisition experience do little to aid Army development of its program managers. The twenty-two major acquisition programs terminated since the end of the Cold War and the millions of wasted dollars associated with them

demonstrate the depth and breadth of this Army challenge.²⁴ Could a broader experience base have better developed these program managers and saved these programs? Facing an era of severe belt tightening, the Army can ill afford to waste its dwindling fiscal assets on developmental programs and capability portfolios without yielding rapid, successful, concrete results. Army program managers must possess the right practical experiences to ensure their success and the success of their programs.

USD(AT&L) identified experiential deficiencies and experience gaps across the entire DoD acquisition program management workforce. Detailed study and focus by the DASD STS, led the Program Management FIPT to develop a solution to this challenge. Working with the services and the 4th Estate, USD(AT&L) developed the Acquisition Qualification Standards (AQS) program to address the identified gaps and deficiencies in experiential development. The AQS program incorporates qualification workbooks designed to augment DAWIA certification by designating specific program management competencies which program managers must demonstrate both understanding and proficiency. “The AQS program is intended to provide a measurable standard for individual qualification that goes beyond the requirements of DAWIA certification by providing a means to plan and document demonstrated knowledge, skills, and proficiency.”²⁵ AQS addresses competency in acquisition fundamentals, application of those fundamentals on the job, and experiential development. The experience piece marks AQS’s debarkation from previous developmental endeavors in that it requires AQS program participants to demonstrate proficiency in four program management competencies areas: executive leadership, programmatic execution, business management, and technical management. Designated supervisor and/or

subject matter expert qualifiers, who verify demonstrated knowledge, actively evaluate the application of fundamentals and experience development efforts. AQS further requires frequent interaction between leadership and subordinates and advances the relevance of the acquisition workforce individual developmental plan and periodic performance counseling. AQS maximizes focus on personal and professional development to minimize experiential, education and functional training gaps.

USD(AT&L) and the Army initiated a pilot of the AQS concept within the Program Executive Office (PEO) Soldier in 2012. “The AQS program represents a viable method for the Army to overcome program manager experiential deficiencies and gaps while establishing more concrete tasks and standards to guide professional development.”²⁶

Additionally, AQS allows for special purpose assignments internal and external to the PEO structure to round out experiences. AQS also provides insight into appropriate developmental career pathways program managers should follow to build individual competence and fully broaden experiences. AQS is not a panacea for building program manager experience. Though when fully implemented across the Army, AQS should bolster the Army’s program manager experiential development process. Still the Army must do more to clarify the experiences needed by its program managers to build their individual skill sets over their career and develop themselves as leaders. DAWIA, DoDI 5000.66, and AQS all share a common purpose, development of the most comprehensively trained, educated, technically proficient, experienced, and professional acquisition workforce possible. To capitalize on the AQS program, the Army must also better articulate program management pathways to leadership. These career pathways should not represent the yellow brick road to nirvana nor infer that serving in specific

assignments means later selection for Army central board selected program manager leadership billet. These pathways should identify the relevant career assignments that aid in building the experience base necessary for successfully managing and leading a program.

The Department of the Army Personnel Office (DA G-1) initiated a rewrite of DA PAM 600-3, Commissioned Officer Professional Development and Career Management, in 2011 to address changes to Officer professional development and career management guidance across the force. The USAASC took this opportunity to update specific career guidance for officers and address potential career paths open to officers across the span of their careers. A new generic officer career path and individual developmental timeline from final draft of DA PAM 600-3 appears in Figure 4. The DA G-1 should finalize and publish the new DA PAM 600-3 in late 2012 or 2013.

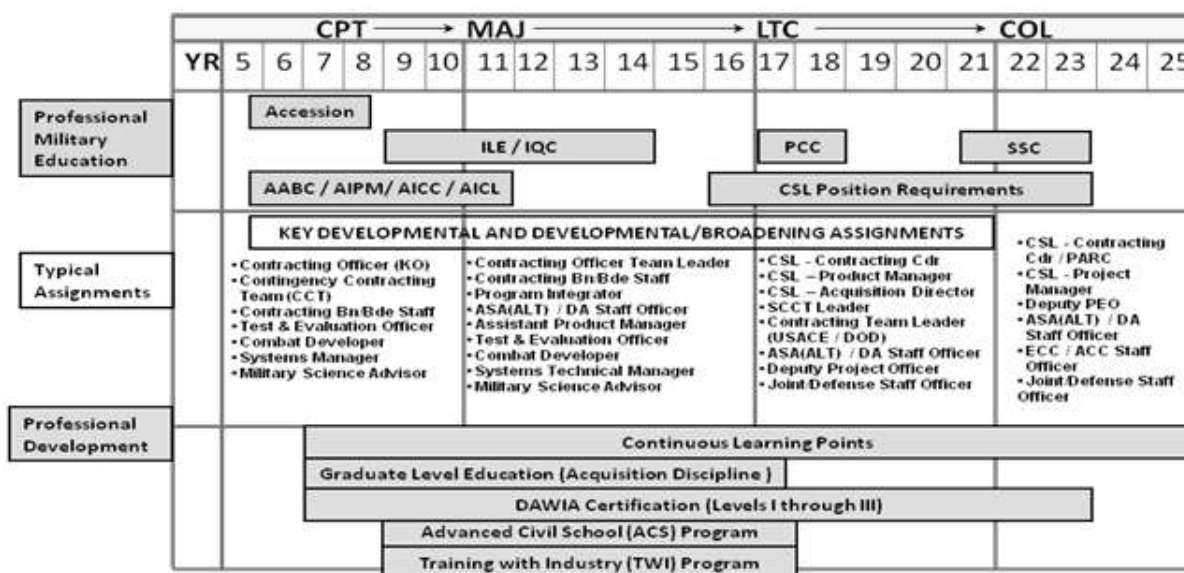


Figure 4. Generic Officer Career Path and Individual Developmental Timeline²⁷

The DA PAM 600-3 Officer Life-cycle Development Model Functional Area 51²⁸ depicts multiple career paths for military acquisition officers. The Army possesses

several viable career pathways with which acquisition officers can plot their careers and develop their respective experiential skill sets. The above model provides key developmental and broadening assignment examples and identifies several critical acquisition positions (CAPs) and key leadership positions (KLPs) within the senior grades. This new developmental model provides quality assignment and positional recommendations Army program managers should seek to serve within to gain fundamental experience and DAWIA certification in their primary ACF, before seeking secondary ACF certification or broadening opportunities

Shortfalls and Recommendations

Army developmental program success and the effective management of capability portfolios across the full spectrum of the DoD's acquisition lifecycle relies on technically trained, critically thinking leaders possessing broad experience and practically honed professional skill sets. Army Acquisition Corps program manager development is rife with shortfalls across the three aspects of certification mandated by DAWIA. Rectifying these shortfalls while standardizing competencies developed in junior, journeyman, and seasoned program managers is essential to the Army's ability to operate effectively in the pending era of fiscal constraint.

The Army must incorporate formal education requirements to address acquisition program manager shortcomings in technical theory, critical thinking, and problem solving. DAWIA provides services the flexibility to adjust internal requirements.²⁹ As such, the Army must modify program management educational requirements to include undergraduate degrees for entrance into the program management career field. Specifically, Army program management formal education requirements should stipulate undergraduate degrees in acquisition-related disciplines such as Engineering

(e.g. mechanical, industrial, and software), Business Administration, Finance, Information Technology or similar fields of study correlating to the business enterprise. Additionally, if accessed into the acquisition workforce without a degree or with a degree in another academic discipline, acceptance into the Army's acquisition corps and assignment to a CAP, KLP, or Central Select List program management positions must be contingent upon completion of a graduate level degree in a discipline similar to those previously described. DAWIA's intent is to ensure that those personnel managing critical developmental programs and procurement efforts are the best trained and highest skilled to avoid wasting valuable resources and programmatic failure. By incorporating strict formalized collegiate education requirements, the Army will do much to ensure that the best and brightest are selected to lead and manage its programs.

The Army cannot leverage this mandate without identifying a methodology for current and future program managers to achieve this level of academic rigor. The Army must consider expanding its presence and throughput to the NPS either by increasing its resident student quotas or by exploring the NPS nonresident option over attendance of DAU. This would require increasing the number of Army faculty and administrators available to the NPS to offset an increase in students. The Army must be willing to share this burden.

A secondary option is a detailed review and restructuring of the AACoE curricula to resemble that of the NPS. The AACoE represents a wealth of potential when considering expansion of current curricula to include the incorporation of an acquisition related masters degree program. The AACoE enjoys a very close relationship with University of Alabama, Huntsville. This relationship includes close faculty coordination,

on campus classrooms, as well as room and board facilities. Cultivating an affiliation between the AACoE and University of Alabama, Huntsville is a logical step. Expanding AACoE's existing functional training curricula can provide a solid base for an effective Army specific acquisition graduate program. The NPS provides a quality model for the Army to consider when growing the AACoE into a true center for Army acquisition technical development and acquisition studies. An acquisition related graduate degree program coordinated between the AACoE and the University of Alabama, Huntsville should enable functional training to augment formal education and endow young program managers with the technical skills, mental tools, and understanding of acquisition theory to better lead programs. Simply providing developing program managers the wherewithal to achieve DAWIA certification does not create well-rounded acquisition leaders.

Mr. Kevin Zurmuehlen, the AACoE Director is working to develop such a program. Mr. Zurmuehlen is coordinating with both the Dean of the University of Alabama, Huntsville and Athens State University to resolve program requirements, timing, distribution, and delivery to make this concept a reality.³⁰ Completion of the AACoE/University of Alabama, Huntsville joint masters program should aim to achieve or exceed the credentialing provided by the NPS. This would put an AACoE acquisition graduate degree program on par with the NPS and ensure Army graduates enter the workforce well educated, technically proficient, capable of critical thinking, and prepared to address and solve complex problems.

The Army adopted the LCMC philosophy, which places responsibility for holistic program and/or capability portfolio management over the entirety of the acquisition

lifecycle on the program manager. As such, today's program managers must be adept at: developing and refining realistic requirements, accurately estimating program cost, identifying viable solution concepts which meet or exceed requirements, developing program support and sustainment options, extending overall program life and viability, and planning for eventual demilitarization and retirement. Any one of these functions represents an acute managerial challenge in and of itself. The LCMC concept places the burden of responsibility for the successful and efficient oversight and management of each of these functions on the program manager. Success for program managers no longer resides in their ability to juggle deftly programmatic cost, schedule, and performance. The Army's LCMC concept demands this and far more from a program manager. The LCMC concept requires program manager to know everything and be the undisputed expert on every aspect of their program or portfolio. To do this effectively, program managers need to broaden their thinking and approach to managing and leading their programs.

The Program Manager for Combat Engineer and Material Handling Equipment (PM CE/MHE) within the Program Executive Office Combat Support and Combat Service Support (PEO CS&CSS) developed and adapted a holistic approach with which it manages its capability portfolio under the LCMC concept. This holistic approach requires programs be examined and considered in their entirety from inception through retirement and disposal. This spawned development of several tools. The first tool is the Wave Chart (Figure 5), which allows the PM CE/MHE team to view a specific equipment fleet within its equipment portfolio and accurately plan for replacement or refurbishment of portion or all of a specific fleet.^{31 32}

The LCMC concept requires program managers develop sound programmatic budgets to allow accurate fiscal planning within the Program Objective Memorandum (POM). Further, the LCMC concept pushes the program manager to develop a sound strategic plan for addressing programmatic out years enabling the effective management of the capability portfolio both at the individual system level and holistically. Managing programmatic and capability portfolio out years enables program managers and the Army to strategize when to initiate new capabilities and when posturing and fund solicitation must begin to support development of that new capability. Program managers support long-term strategy creation by knowing the age, maintenance costs, refurbishment costs, and expected new equipment costs related to their capability portfolio.

PM CE/MHE developed a tool with which to holistically view and manage its entire capability portfolio. This tool is the PM CE/MHE Rainbow Chart (Figure 6). The Rainbow Chart assists the PM CE/MHE in understanding, strategizing, and articulating when a new requirement must be developed and incorporated into programmatic out year fiscal planning.³³ The Rainbow Chart depicts the entire PM CE/MHE capability portfolio thus allowing the PM CE/MHE leadership and the Army to strategically plan for system or capability replacement by keeping overall programmatic costs consistent and limiting spikes. PM CE/MHE employed the Rainbow Chart during the FY2010 Army Chief of Staff's Portfolio Review process to justify portfolio management decisions and funding requests regarding future procurements. The result was that the Army's engineer capability portfolio was not decremented. Several engineering systems received fiscal augmentation based on the detailed fact-based planning and the

comprehensive portfolio management strategy enabled by the Rainbow Chart. The Rainbow Chart created an accurate and detailed mosaic of portfolio age and cost. The Rainbow Chart showed the Army's senior leadership when the Army could most cost effectively replace and refurbish equipment within the PM CE/MHE portfolio.

The Army's LCMC concept requires today's program manager completely understand their capability portfolio and have a comprehensive strategy for their portfolio's future. The Wave and Rainbow charts represent solid techniques, which the PM CE/MHE developed to do this. Army functional training venues must expand beyond their current DAWIA certification focus to meet the expanded requirements presented by the LCMC concept. Army specific program management functional training must include comprehensive portfolio management concepts like those employed by PM CE/MHE to aid developing program managers in meeting the expectations placed on them by the Army's LCMC concept. Additionally, Army specific program management functional training should spend more time on ensuring proficiency in acquisition basic competencies such as how to review a capabilities production document, perform market research, write an Acquisition Strategy, as well as how to review and develop the right type of contract to support procurement. Fully understanding the basics of program management provides the foundation from which to expand professional knowledge and competency. Completion of program management functional training should continue supporting achievement of DAWIA certification as this remains the sole recognized measure of professional competency. However, Army program manager functional training must include concepts designed to better prepare program managers

to successfully manage and lead the Army's programs and capability portfolios across the entirety of the acquisition lifecycle.

The proposed AQS program presents a viable course of action for the Army to ensure developing program managers acquire the broad spectrum experiences required to successfully lead and manage programs. AQS is still in its infancy. The Army must incorporate specific adjustments to ensure AQS viability and ultimately its implementation across the Army. There is no connection between the AQS qualification and the Individual Development Plan (IDP) which makes management and monitoring of employee progress laborious.³⁴ The AQS qualification task lists are extensive, calling into question if AQS program participants have sufficient time to complete AQS qualification while performing their daily mission. Additionally, there is no linkage between AQS qualification and DAWIA certification requirements. The Army must internally link AQS qualification and DAWIA certification requirements to energize program manager experiential development across the enterprise. Despite these shortcomings, Brigadier General Paul A. Ostrowski, the Program Executive Officer, PEO Soldier, stated, "AQS is a worthwhile concept for road mapping the experience requirements for an acquisition program manager."³⁵ The Army must develop an electronic linkage between AQS and the IDP to make execution of the program less burdensome on program management leadership and AQS program participants. Additionally, the Army must press OUSD AT&L for a linkage between AQS qualifications and existing DAWIA certification requirements or AQS risks abandonment.

Conclusion

The Army faces dramatic fiscal challenges in the very near future. Doubtless, these challenges will have devastating, long lasting impacts on the Army in general, and

Army procurement efforts. These challenges are not insurmountable. Adopting a holistic approach to program manager professional development as described represents a divergent paradigm from historic Army developmental methodology. It starts with standardizing the approach to functional training, requiring formalized collegiate education, and building quality career experience.

The Army can and must address career educational requirements for its program managers, as it will only increase their proficiency, competency, and overall professionalism. Expanding the AACoE to address Army specific training requirements and holistic capability portfolio management concepts similar to the PM CE/MHE examples will better prepare program managers to meet the Army's LCMC concept requirements. Additionally, focusing on individual professional development via the AQS program and improved mentor and mentee relationship better allows developing program managers to broaden individual skill sets. These ideas represent a start and offer a way forward. It is up to the Army and its acquisition leadership to institutionalize them.

The Army must address the multiple challenges regarding dwindling resources. As the Army develops plans to overcome the challenges of fiscal restraint, it must also examine the deficiencies in program manager professional development. The Army has the ways and means available to address the critical shortfalls in program manager development. It must do so now or it will surely see the result as it struggles to refurbish equipment fleets devastated by over a decade of war and develop future capabilities. The Army is at a fiscal crossroads. Training our soldiers is essential to their success and survival on the battlefield. Training our program managers may prove essential to

the survival of the Army. Not doing so risks our ability to keep the Army and our military “the best led, trained, and equipped in the world.”³⁶

Endnotes

¹ General Martin E Dempsey, Chairman's Strategic Direction to the Joint Force (Washington, DC: U.S. Joint Chiefs of Staff, 2012), 5.

² Thomas G. Mahnken, *Asia in the Balance, Transforming US Military Strategy in Asia*. (Washington, DC: American Enterprise Institute, 2012), 4, http://www.aei.org/files/2012/05/31/-asia-in-the-balance-transforming-us-military-strategy-in-asia_134736206767.pdf (accessed December 23, 2012).

³ Andrea Garcia, et al., "The Defense Acquisition Workforce Improvement Act: Five Years Later," *Acquisition Review Quarterly*, June 10, 1997: 295-314.), 297.

⁴ Ibid.

⁵ Ibid., 295.

⁶ Defense Acquisition University, "Brief History of Acquisition Training," <http://www.dau.mil/history/Pages/briefhistory.aspx> (accessed December 17, 2012).

⁷ Defense Acquisition Portal, "DoD 5000 Defense Acquisition System," <https://dap.dau.mil/aphome/das/Pages/Default.aspx> (accessed December 6, 2012).

⁸ Defense Acquisition Portal, "Integrated Life Cycle Chart," https://ilc.dau.mil/html/ILC_Main.htm (accessed December 6, 2012).

⁹ U.S. Department of Defense, *Subject: Operation of the Defense Acquisition, Technology, and Logistics Workforce Education, Training, and Career Development Program*, DoDI 5000.66 (Washington, DC: U.S. Department of Defense, Undersecretary of Defense for Acquisition, Technology, and Logistics, 2005), 5, <http://www.dtic.mil/whs/directives/corres/pdf/500066p.pdf> (accessed December 12, 2012).

¹⁰ COL (R) William Parker, Director, Defense Acquisition University Acquisition and Program Management Center, telephone interview by author, December 5, 2012.

¹¹ Ibid.

¹² Defense Acquisition Portal, "Certification & Core Plus Development Guides," <http://icatalog.dau.mil/onlinecatalog/CareerLvl.aspx#> (accessed December 6, 2012).

¹³ Defense Acquisition Portal, "DoD 5000 Defense Acquisition System," <https://dap.dau.mil/aphome/das/Pages/Default.aspx> (accessed December 6, 2012).

¹⁴ Kevin Zurmuehlen, Director, Army Acquisition Center of Excellence, telephone interview by author, October 23, 2012.

¹⁵ Naval Postgraduate School, "Graduate School of Business & Public Policy," <http://www.nps.edu/Academics/Schools/GSBPP/Academics/MBA/AM815816/index.html> (accessed December 28, 2012).

¹⁶ Ibid.

¹⁷ BG Paul A. Ostrowski, Program Executive Officer, Program Executive Office Soldier, interviewed by author, Fort Belvoir, VA, November 23, 2012.

¹⁸ COL (R) Parker, interview, 2012.

¹⁹ It should also be noted that attendance of the NPS by junior Army acquisition accesses (senior O-3's or junior O-4's) is granted through a rigorous selection board process, thus those chosen to attend are proven exceptional performers based on their previous performance records.

²⁰ As with all military schooling, attendance of the NPS incurs a mandatory service obligation. NPS graduates incur a mandatory 3-1 service obligation, meaning that graduates incur a 3 day service obligation for every day they are in attendance. As the NPS curriculum runs from 18-24 months based on the acquisition curriculum undertaken, Army NPS graduates incur between a 4.5 and 6 year service obligation.

²¹ Garcia, et al., "DAWIA, Five Years Later," 297.

²² Defense Acquisition Portal, "Certification and Core Plus Development Guides," (2012).

²³ U.S. Department of Defense, *DoDI 5000.66*, 21.

²⁴ U.S. Army Research, Development and Engineering Command, "Army Strong: Equipped, Trained and Ready; Final Report of the 2010 Army Acquisition Review," iv, http://www.rdecom.army.mil/EDCG%20Telecoms/Final%20Report_Army%20Acq%20Review.pdf (accessed December 30, 2012).

²⁵ U.S. Department of Defense, *Acquisition Qualification Standard (AQS), Program Manager, Entry, Intermediate, and Senior Level Workbook*, Vol. 1, Version 4.0 (Arlington, VA: U.S. Department of Defense, Undersecretary of Defense for Acquisition, Technology, and Logistics, 2012), 2.

²⁶ BG Ostrowski, interview, 2012.

²⁷ U.S. Department of the Army, *Commissioned Officer Professional Development and Career Management*, Department of the Army Pamphlet 600-3, (Washington, DC: Department of the Army, 2010), 395.

²⁸ Functional area 51 refers to the Army officer functional specialty designation numeric code for the five military acquisition career fields: Program Management (51A), Contracting (51C), Information Technology (51R), Testing and Evaluation Management (51T), and Systems Planning, Research, Development, and Engineering-Science and Technology Management (51S). When published, the new DA PAM 600-3 will reduce the overall number of military acquisition career fields by consolidating 51T and 51S into the 51A career field.

²⁹ Garcia, et al., "DAWIA, Five Years Later," 297.

³⁰ Zurmuehlen, interview, 2012.

³¹ The Wave Chart graphically displays and tracks via color-coding the age, quantity, and general disposition of the equipment comprising a specific fleet upon entry into service. The chart further delineates how the subsequent purchase of additional assets affects the overall quantity and fleet age when considered over the planned fifteen-year service life of CE/MHE equipment. As the age of the equipment becomes older, the height of wave diminishes until it crosses below zero.

³² John Daniele, *Wave Chart*, (Warren, MI: Program Executive Office Combat Support and Combat Service Support, 2010). John Daniele is the Deputy Product Manager for the Program Manager Combat Engineer and Material Handling Equipment Office and authored this Microsoft Excel Spreadsheet.

³³ The PM CE/MHE Rainbow Chart is an extension of the previously described Wave Chart as it tracks fleet quantity, age, service entry (fielding) date, etc. The Rainbow Chart takes these details several steps further in that it depicts when a specific equipment fleet or portion of a fleet is no longer cost effective to support or maintain. The Rainbow Chart tracks details across 80 systems within the PM CE/MHE capability portfolio from 1970 through 2050. Systems in green represent systems within their planned lifecycle. Systems depicted yellow require action either in the development of a new system or refurbishment of an existing system to cost effectively extend its planned useful life. Systems depicted in red exceed their planned fifteen-year useful life and require extensive refurbishment or replacement. In some instances, systems depicted in red received refurbishment numerous times making replacement the most cost effective option. John Daniele, *Rainbow Chart*, (Warren, MI: Program Executive Office Combat Support and Combat Service Support, 2010). John Daniele is the Deputy Product Manager for the Program Manager Combat Engineer and Material Handling Equipment Office and authored this Microsoft Excel Spreadsheet.

³⁴ BG Ostrowski, interview, 2012.

³⁵ BG Ostrowski, interview, 2012.

³⁶ GEN Dempsey, *Chairman's Strategic Direction to the Joint Force*, 5.